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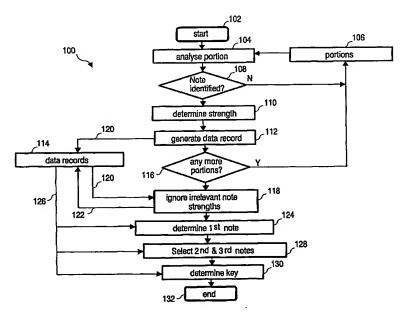
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[Continued on next page]

(54) Title: AUDIO SIGNAL ANALYSING METHOD AND APPARATUS



(57) Abstract: A method for determining the key of an audio signal such as a music track. Portions (106) of the audio signal are analysed (104) to identify (108) a musical note and its associated strength (110) within each portion. Some notes identified in a portion may be ignored (118) to enable notes related to the key to be more readily distinguished. A first note is then determined (124) from the identified musical notes as a function of their respective strengths. From the identified musical notes, at least two further notes are selected (128) as a function of the first note. The key of the audio signal is then determined (130) based on a comparison of the respective strengths of the selected notes.



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CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G10H1/00 G10H3/12

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## B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

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Y	US 2002/035915 A1 (PULKKI VILLE ET AL) 28 March 2002 (2002-03-28) paragraph '0010! paragraph '0013! paragraph '0030! - paragraph '0031! paragraph '0043! - paragraph '0048! paragraph '0053! paragraph '0057! - paragraph '0059!	1-27

χ Patent family members are listed in annex.				
<ul> <li>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</li> <li>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>"&amp;" document member of the same patent family</li> </ul>				
Date of mailing of the international search report  04/06/2004				
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